

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently amended) An isolated nucleic acid comprising a nucleotide sequence ~~or a fragment thereof encoding that encodes~~

(a) a polypeptide having the amino acid sequence set forth in SEQ ID NO:1, or

(b) a fragment of the polypeptide of (a), wherein said fragment catalyzes the formation of trans-cinnamic acid by deamination of L-phenylalanine.
2. (Currently amended) The nucleic acid of Claim 1, wherein said nucleotide sequence comprises the nucleotide sequence set forth in SEQ ID NO:3 or a fragment thereof that encodes a polypeptide that catalyzes the formation of trans-cinnamic acid by deamination of L-phenylalanine ~~of at least 18 base pairs up to the full length of the open reading frame encoding said amino acid sequence.~~
3. (Currently amended) The nucleic acid of Claim 2, wherein said ~~fragment~~ is between 18 and 500 base pairs nucleotide sequence comprises the nucleotide sequence set forth in base pair positions 119 to 2254 of SEQ ID NO:3.
- 4-8. (Canceled)
9. (Currently amended) ~~An isolated nucleic acid construct~~ recombinant expression cassette comprising a ~~transcriptional initiation sequence~~ promoter operably linked to a nucleic acid having the sequence set forth in SEQ ID NO:3.
10. (Currently amended) A recombinant vector comprising the ~~nucleic acid construct~~ expression cassette of Claim 9.

11. (Currently amended) The vector of Claim 10, ~~wherein,~~ wherein SEQ ID NO:3 is operably linked in a sense orientation with respect to said ~~transcriptional initiation sequence promoter.~~

12. (Currently amended) The ~~transcriptional initiation sequence~~ isolated nucleic acid construct of Claim 9, wherein said ~~initiation sequence promoter provides wound induced~~ induces expression of SEQ ID NO:3 in response to wounding.

13. (Original) A transgenic plant cell or bacterial cell comprising the vector of Claim 11.

14. (Canceled)

15. (Currently amended) A method for producing a transgenic cell having ~~altered~~ increased or decreased phenylalanine ammonia-lyase expression levels, said method comprising:

introducing an expression cassette comprising a ~~transcription initiation sequence promoter~~ operably linked to ~~an~~ nucleic acid ~~open reading frame coding for encoding a~~ polypeptide having the amino acid sequence set forth in SEQ ID NO:1 or ~~an enzymatically active a fragment thereof, and that catalyzes the formation of trans-cinnamic acid by deamination of L-phenylalanine; and~~

growing said cell whereby said ~~open reading frame~~ nucleic acid is expressed ~~and to produce a the transgenic cell having altered~~ increased or decreased phenylalanine ammonia-lyase ~~is produced~~ expression levels, wherein the increase or decrease is relative to the levels of phenylalanine ammonia-lyase endogenously expressed in said cell.

16. (Currently amended) The method of Claim 15, wherein ~~open reading frame is shown in SEQ ID NO:2 or SEQ ID NO:4~~ the nucleic acid has the nucleotide sequence set forth in base positions 119 to 2254 of SEQ ID NO:3.

17. (Currently amended) The method of Claim 16, wherein expression of said ~~open reading frame~~ nucleic acid results in an increase in the cell of an activity selected from the group consisting of antifungal, antibacterial, and insecticidal activity, wherein the increase is relative to the antifungal, antibacterial, or insecticidal activity resulting from the endogenous expression of phenylalanine ammonia lyase in said cell.

18-20. (Withdrawn)

21-23. (Canceled)